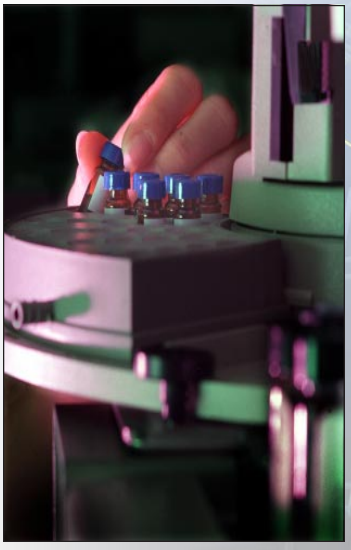

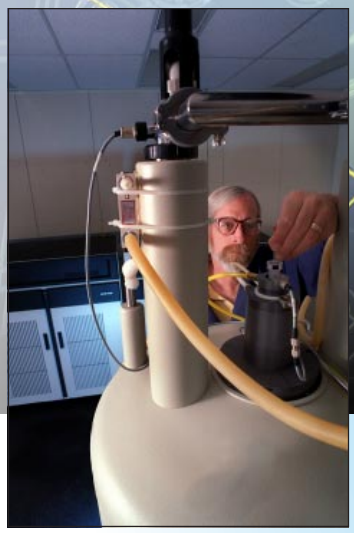

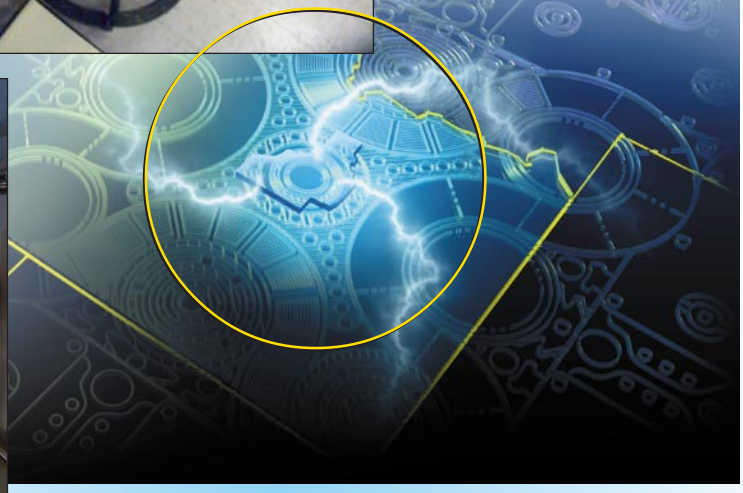

INEEL assets include a 570,000-acre desert operations complex as well as an integrated research campus and allied support facilities in nearby Idaho Falls.

INEEL – at a glance

The Idaho National Engineering and Environmental Laboratory (INEEL) stands out as a unique national and international resource. From its vantage at the confluence of basic science and applied engineering, the lab and its more than 5,000 scientists, engineers and support personnel build on the potential and promise of the theoretical for the benefit of the real world.

One of the Few

The INEEL is one of only nine multiprogram national laboratories owned by the U.S. Department of Energy. Geographically, the INEEL is the largest lab – at nearly 570,000 acres. As with its sister DOE laboratories, the INEEL performs work in support of each of the Department of Energy's four strategic goals – energy, defense, environment and science.

A Proud Past

In the early days, the INEEL was known as the National Reactor Testing Station. Since 1949, the Idaho site has been the location of many pioneering developments in the area of nuclear energy. The world's first usable amount of electricity from nuclear energy was generated in Idaho in 1951. Over the years, 52 mostly first-of-their-kind reactors were designed and built at Idaho's national laboratory, creating the largest concentration of reactors in the world.

A High-performing Present

Today, the INEEL reports to DOE's Office of Nuclear Energy, Science and Technology and serves alongside Argonne National Laboratory as the nation's lead laboratory for nuclear energy research and development. The INEEL conducts a wide range of agency-supporting activities:

- **Nuclear Science.** The INEEL is the leading laboratory in basic nuclear and radiological science research and applications. Both

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Idaho National Engineering and Environmental Laboratory

INEEL

Home of Science and Engineering Solutions

Continued from front

DOE and non-DOE customers request the expertise and assistance of the INEEL's nuclear scientists. The INEEL played a key role in the recently completed Generation IV Reactor Technology Roadmap and has an essential integration role in the Advanced Fuel Cycle Initiative.

- **Nuclear Reactor Design, Development, Operations & Safety.** With over 50 years of experience in nuclear reactor and nuclear materials processing, plant design, operations and decommissioning, the INEEL has internationally recognized expertise to conduct nuclear reactor R&D. The INEEL is globally renowned for nuclear criticality safety leadership. INEEL nuclear operations, encompassing reactor operations and irradiation services, are based on a long tradition of safe and cost-effective operations.
- **National Security.** The INEEL is an innovator of science-based and integrated engineering systems for national security applications for DOE, other government agencies and industrial partners. A leader in critical infrastructure assurance, the INEEL is conducting technology development for the intelligence community, providing program support for Defense Department clients, and engaging in nonproliferation and counterproliferation systems development.

  A large portion of the INEEL's national security activities originates as "Work for Others" for non-Department of Energy government organizations. This reflects well on specialized capabilities that exist at the INEEL for designing and building unique engineered systems. Examples include the Specific Manufacturing Capability, Mobile Munitions Assessment System, future combat systems and projects supporting advanced military command-and-control systems.
- **Fossil Energy, Energy Efficiency, and Renewable Energy.** With its significant science and engineering capabilities in fundamental energy and materials science, transportation, industrial efficiency, energy efficiency, building technologies, and fossil energy, the INEEL conducts targeted R&D.

  The INEEL is one of three lead laboratories for the DOE Geothermal Program and is responsible for the program's geoscience research component. The INEEL is lead laboratory for engineering support to the DOE National Hydropower Program – applying its engineering expertise to issues such as fish mortality, impact on aquatic environments, water quality and land use. Other INEEL research programs include hydrogen production and use – including materials science, plasma technologies, biotechnology and alternate fuel transportation systems.
- **Science.** INEEL researchers are involved in an array of basic science activities. Research disciplines represented at the INEEL include earth sciences and environmental engineering, biotechnology, physical systems modeling, systems engineering, intelligent automation and remote systems, applied engineering, materials processing, chemical separations and processing, and sensing and diagnostics. Primary assignments include research in neutron capture therapy, surface ionization mass spectrometry, and fusion safety.

A Plan for Tomorrow

The INEEL is focusing its considerable resources on five specific initiatives. These are advanced nuclear energy, critical infrastructure assurance, hydrogen, subsurface science, and advanced computing and collaboration.

New research assets are being brought on line to support these initiatives. Notable additions include the STAR and Matched Index of Refraction facilities, Wireless Test Bed, Material Science Support Laboratory and the Geocentrifuge Research Laboratory.

With its unique and complementary blend of physical assets, the expertise of its researchers, its record of "getting the job done," and unparalleled support from regional academic institutions through the Inland Northwest Research Alliance, the Idaho National Engineering and Environmental Laboratory is well-positioned to continue providing scientific and technological innovation in support of DOE's missions.

For More Information

800-708-2680
www.inel.gov

The INEEL is a U.S. Department of Energy national laboratory operated by Bechtel BWXT Idaho, LLC.